

Please add new claims 24-45, which contain no new matter, as follows:

24. A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam; and
a switch adapted to select an output from at least one of the sensors.
25. A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam; and
an iris adapted to limit an amount of the directed beam received by at least one of the sensors.
26. A camera, comprising:
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed beam;
a color image sensor adapted to receive a portion of the distributed beam;
a monochrome image sensor adapted to receive a portion of the distributed beam;
an iris adapted to limit an amount of the directed beam received by at least one of the sensors; and
an iris driver adapted to limit an output from at least one of the sensors.
27. A camera, comprising:
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed beam;
a color image sensor adapted to receive a portion of the distributed beam;
a monochrome image sensor adapted to receive a portion of the distributed beam;

an iris adapted to limit an amount of the directed beam received by at least one of the sensors;

an iris actuator; and

an iris driver adapted to drive the iris actuator and the iris thereby limiting an output from at least one of the sensors if the output crosses a threshold.

28. A camera, comprising:

a single lens system adapted to direct a beam;

a beam-splitting mirror adapted to receive and distribute the directed beam;

a color image sensor adapted to receive a portion of the distributed beam;

a monochrome image sensor adapted to receive a portion of the distributed beam;

an iris adapted to limit an amount of the directed beam received by at least one of the sensors;

an iris actuator;

a first module adapted to sample an output from at least one of the sensors;

a second module adapted to filter the sampled output;

a third module adapted to provide a time constant to the filtered output;

an iris driver adapted to:

receive the output from the third module; and

drive the iris actuator and the iris thereby limiting the output if the output increases to a certain level.

29. A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam;

a second image sensor adapted to receive a portion of the distributed beam; and

an image intensifier associated with one of the sensors.

30. A camera, comprising:

a single lens system adapted to direct a beam;

a beam-splitting mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
an image intensifier, associated with at least one of the sensors, adapted to intensify the portion of the distributed beam before being received by at least one of the sensors; and
at least one relay lens adapted to transfer the intensified portion of the distributed beam to at least one of the sensors.

31. A camera, comprising:

A7 cont
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
an image intensifier, associated with at least one of the sensors, adapted to intensify the portion of the distributed beam before being received by at least one of the sensors; and
a fiber optic bundle adapted to transfer the intensified portion of the distributed beam to at least one of the sensors.

32. A camera, comprising:

a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
a first iris adapted to limit an amount of the directed beam;
an image intensifier adapted to intensify the limited amount of the directed beam;
and
a second iris adapted to limit an amount of the intensified directed beam reaching at least one of the sensors.

33. A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
[a first iris adapted to limit an amount of the directed beam;
[an image intensifier adapted to intensify the limited amount of the directed beam;
[a second iris adapted to limit an amount of the intensified directed beam reaching
at least one of the sensors;
at least one iris actuator;
at least one first module adapted to sample an output from at least one of the
sensors;
at least one second module adapted to filter the sampled output;
at least one third module adapted to provide a time constant to the filtered output;
at least one iris driver adapted to:
receive the output from the at least one third module; and
drive the at least one iris actuator and the at least one iris thereby limiting
the output if the output increases to a certain level.

34. A system, comprising:

a plurality of cameras sharing a single optical path, the cameras each comprising:
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed
beam;
a plurality of sensors adapted to receive a portion of the distributed beam;

and

a switch adapted to select an output from at least one of the sensors; and
a multiplexer, operably coupled to the cameras, adapted to select at least one of
the cameras.

35. A camera, comprising:

a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first digital image sensor adapted to receive a portion of the distributed beam;

a second digital image sensor adapted to receive a portion of the distributed beam;
and

a processor adapted to:

control a scanning of the image sensors;

receive the scanned portions of the distributed beam; and

produce an output based on the received portions.

36. A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first digital image sensor adapted to receive a portion of the distributed beam;

a second digital image sensor adapted to receive a portion of the distributed beam;

a processor adapted to control a scanning of the image sensors, and produce an

output based on the scanning;

a pair of orthogonal gyroscopic accelerometers adapted to detect angular accelerations;

the processor further adapted to twice integrate the angular accelerations to derive an instantaneous angular position of the camera; and

the processor further adapted to temporally offset the scanning, thereby stabilizing the output based on the instantaneous angular position.

37. A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first digital image sensor adapted to receive a portion of the distributed beam;

a second digital image sensor adapted to receive a portion of the distributed beam;

a processor adapted to control a scanning of the image sensors, and produce an

output based on the scanning;

a pair of orthogonal gyroscopic accelerometers adapted to detect angular accelerations;

the processor further adapted to twice integrate the angular accelerations to derive an instantaneous angular position of the camera; and

the processor further adapted to variably offset read addresses driven to the sensors, thereby stabilizing the output based on the instantaneous angular position.

38. A camera, comprising:

a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first digital image sensor adapted to receive a portion of the distributed beam;
a second digital image sensor adapted to receive a portion of the distributed beam;

and

a processor adapted to:

control a scanning of the image sensors, wherein the scanning can occur in at least one of a following order:

reverse-pixel; and

reverse-line; and

produce an output based on the scanning.

39. A camera, comprising:

a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a color image sensor, providing chrominance information, adapted to receive a portion of the distributed beam;

a monochrome image sensor, providing luminance information, adapted to receive a portion of the distributed beam;

a non-traditional color filter adapted to filter the chrominance information; and

a processor adapted to:

control a scanning of the image sensors; and

produce an output based on the scanning, wherein a resolution of the output of the color image sensor is increased based on the filter.

40. A camera, comprising:

a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;

a color image sensor, providing chrominance information, adapted to receive a portion of the distributed beam;

a monochrome image sensor, providing luminance information, adapted to receive a portion of the distributed beam; and

a processor adapted to perform at least one of a following action:

control a scanning of the chrominance information and the luminance information;

scale the chrominance information and the luminance information; and
merge the chrominance information and the luminance information.

41. A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam;

a second image sensor adapted to receive a portion of the distributed beam;

a first iris adapted to limit an amount of the directed beam;

an image intensifier adapted to intensify the limited amount of the directed beam;

a second iris adapted to limit an amount of the intensified directed beam reaching at least one of the sensors;

a processor adapted to control a scanning of the image sensors, and produce an output based on the scanning;

a first actuator;

a second actuator;

wherein incident light reaching the first image sensor is controlled by the first iris, as driven by the actuator, under control of the processor, thereby preventing the first imager from saturation or overload; and

wherein the intensifier is protected by the second iris, driven by the second actuator, under control of the processor, thereby protecting the intensifier from excessive illumination.

42. A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;
a first relay lens comprising a first magnification ratio;
a second relay lens comprising a second magnification ratio;
a first imager adapted to receive a portion of the distributed beam via the first relay lens; and

a second imager adapted to receive a portion of the distributed beam via the second relay lens;

wherein the portions are at least one of a following option:

similar;

dissimilar;

different magnifications; and

similar resolutions.

43. A module, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam; and

a second image sensor adapted to receive another portion of the distributed beam.

44. A method for stabilizing an image produced by a sensor, comprising:

measuring an angular acceleration in two orthogonal axes parallel to an axis of the sensor;

twice integrating the angular acceleration in the orthogonal axes; and

temporarily offsetting scan timing signals based on the measuring and the integrating.

45. A method for stabilizing an image produced by a digital sensor, comprising:

measuring an angular acceleration in two orthogonal axes parallel to an axis of the digital sensor;

twice integrating the angular acceleration in the orthogonal axes; and

generating, based on the measuring and the integrating, an address offset in at least one read address used to access at least one of a following element:

Amel

an image array; and
a buffer of the image array.

Claims 24-45, which contain no new matter, were added:

24. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam; and
a switch adapted to select an output from at least one of the sensors.
25. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam; and
an iris adapted to limit an amount of the directed beam received by at least one of
the sensors.
26. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed beam;
a color image sensor adapted to receive a portion of the distributed beam;
a monochrome image sensor adapted to receive a portion of the distributed beam;
an iris adapted to limit an amount of the directed beam received by at least one of
the sensors; and
an iris driver adapted to limit an output from at least one of the sensors.
27. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed beam;
a color image sensor adapted to receive a portion of the distributed beam;
a monochrome image sensor adapted to receive a portion of the distributed beam;

an iris adapted to limit an amount of the directed beam received by at least one of the sensors;

an iris actuator; and

an iris driver adapted to drive the iris actuator and the iris thereby limiting an output from at least one of the sensors if the output crosses a threshold.

28. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a beam-splitting mirror adapted to receive and distribute the directed beam;

a color image sensor adapted to receive a portion of the distributed beam;

a monochrome image sensor adapted to receive a portion of the distributed beam;

an iris adapted to limit an amount of the directed beam received by at least one of the sensors;

an iris actuator;

a first module adapted to sample an output from at least one of the sensors;

a second module adapted to filter the sampled output;

a third module adapted to provide a time constant to the filtered output;

an iris driver adapted to:

receive the output from the third module; and

drive the iris actuator and the iris thereby limiting the output if the output increases to a certain level.

29. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam;

a second image sensor adapted to receive a portion of the distributed beam; and

an image intensifier associated with one of the sensors.

30. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a beam-splitting mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
an image intensifier, associated with at least one of the sensors, adapted to intensify the portion of the distributed beam before being received by at least one of the sensors; and
at least one relay lens adapted to transfer the intensified portion of the distributed beam to at least one of the sensors.

31. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a beam-splitting mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
an image intensifier, associated with at least one of the sensors, adapted to intensify the portion of the distributed beam before being received by at least one of the sensors; and
a fiber optic bundle adapted to transfer the intensified portion of the distributed beam to at least one of the sensors.

32. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam;
a second image sensor adapted to receive a portion of the distributed beam;
a first iris adapted to limit an amount of the directed beam;
an image intensifier adapted to intensify the limited amount of the directed beam;
and
a second iris adapted to limit an amount of the intensified directed beam reaching at least one of the sensors.

33. (new) A camera, comprising:
a single lens system adapted to direct a beam;

- a mirror adapted to receive and distribute the directed beam;
- a first image sensor adapted to receive a portion of the distributed beam;
- a second image sensor adapted to receive a portion of the distributed beam;
- a first iris adapted to limit an amount of the directed beam;
- an image intensifier adapted to intensify the limited amount of the directed beam;
- a second iris adapted to limit an amount of the intensified directed beam reaching

at least one of the sensors;

- at least one iris actuator;
- at least one first module adapted to sample an output from at least one of the

sensors;

- at least one second module adapted to filter the sampled output;
- at least one third module adapted to provide a time constant to the filtered output;
- at least one iris driver adapted to:
 - receive the output from the at least one third module; and
 - drive the at least one iris actuator and the at least one iris thereby limiting the output if the output increases to a certain level.

34. (new) A system, comprising:

- a plurality of cameras sharing a single optical path, the cameras each comprising:
 - a single lens system adapted to direct a beam;
 - a beam-splitting mirror adapted to receive and distribute the directed
- beam;
- a plurality of sensors adapted to receive a portion of the distributed beam;

and

- a switch adapted to select an output from at least one of the sensors; and
- a multiplexer, operably coupled to the cameras, adapted to select at least one of the cameras.

35. (new) A camera, comprising:

- a single lens system adapted to direct a beam;
- a mirror adapted to receive and distribute the directed beam;
- a first digital image sensor adapted to receive a portion of the distributed beam;

a second digital image sensor adapted to receive a portion of the distributed beam;
and

a processor adapted to:

control a scanning of the image sensors;

receive the scanned portions of the distributed beam; and

produce an output based on the received portions.

36. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first digital image sensor adapted to receive a portion of the distributed beam;

a second digital image sensor adapted to receive a portion of the distributed beam;

a processor adapted to control a scanning of the image sensors, and produce an
output based on the scanning;

a pair of orthogonal gyroscopic accelerometers adapted to detect angular
accelerations;

the processor further adapted to twice integrate the angular accelerations to derive
an instantaneous angular position of the camera; and

the processor further adapted to temporally offset the scanning, thereby stabilizing
the output based on the instantaneous angular position.

37. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first digital image sensor adapted to receive a portion of the distributed beam;

a second digital image sensor adapted to receive a portion of the distributed beam;

a processor adapted to control a scanning of the image sensors, and produce an
output based on the scanning;

a pair of orthogonal gyroscopic accelerometers adapted to detect angular
accelerations;

the processor further adapted to twice integrate the angular accelerations to derive
an instantaneous angular position of the camera; and

the processor further adapted to variably offset read addresses driven to the sensors, thereby stabilizing the output based on the instantaneous angular position.

38. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first digital image sensor adapted to receive a portion of the distributed beam;
a second digital image sensor adapted to receive a portion of the distributed beam;

and

a processor adapted to:

control a scanning of the image sensors, wherein the scanning can occur in at least one of a following order:

reverse-pixel; and

reverse-line; and

produce an output based on the scanning.

39. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a color image sensor, providing chrominance information, adapted to receive a portion of the distributed beam;

a monochrome image sensor, providing luminance information, adapted to receive a portion of the distributed beam;

a non-traditional color filter adapted to filter the chrominance information; and

a processor adapted to:

control a scanning of the image sensors; and

produce an output based on the scanning, wherein a resolution of the output of the color image sensor is increased based on the filter.

40. (new) A camera, comprising:
a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;

a color image sensor, providing chrominance information, adapted to receive a portion of the distributed beam;

a monochrome image sensor, providing luminance information, adapted to receive a portion of the distributed beam; and

a processor adapted to perform at least one of a following action:

control a scanning of the chrominance information and the luminance information;

scale the chrominance information and the luminance information; and
merge the chrominance information and the luminance information.

41. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;

a first image sensor adapted to receive a portion of the distributed beam;

a second image sensor adapted to receive a portion of the distributed beam;

a first iris adapted to limit an amount of the directed beam;

an image intensifier adapted to intensify the limited amount of the directed beam;

a second iris adapted to limit an amount of the intensified directed beam reaching at least one of the sensors;

a processor adapted to control a scanning of the image sensors, and produce an output based on the scanning;

a first actuator;

a second actuator;

wherein incident light reaching the first image sensor is controlled by the first iris, as driven by the actuator, under control of the processor, thereby preventing the first imager from saturation or overload; and

wherein the intensifier is protected by the second iris, driven by the second actuator, under control of the processor, thereby protecting the intensifier from excessive illumination.

42. (new) A camera, comprising:

a single lens system adapted to direct a beam;

a mirror adapted to receive and distribute the directed beam;
a first relay lens comprising a first magnification ratio;
a second relay lens comprising a second magnification ratio;
a first imager adapted to receive a portion of the distributed beam via the first relay lens; and

a second imager adapted to receive a portion of the distributed beam via the second relay lens;

wherein the portions are at least one of a following option:

similar;
dissimilar;
different magnifications; and
similar resolutions.

43. (new) A module, comprising:

a single lens system adapted to direct a beam;
a mirror adapted to receive and distribute the directed beam;
a first image sensor adapted to receive a portion of the distributed beam; and
a second image sensor adapted to receive another portion of the distributed beam.

44. (new) A method for stabilizing an image produced by a sensor, comprising:
measuring an angular acceleration in two orthogonal axes parallel to an axis of the sensor;

twice integrating the angular acceleration in the orthogonal axes; and
temporarily offsetting scan timing signals based on the measuring and the integrating.

45. (new) A method for stabilizing an image produced by a digital sensor, comprising:

measuring an angular acceleration in two orthogonal axes parallel to an axis of the digital sensor;
twice integrating the angular acceleration in the orthogonal axes; and

generating, based on the measuring and the integrating, an address offset in at least one read address used to access at least one of a following element:

an image array; and

a buffer of the image array.